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THE POST-MORTEM DIAGNOSIS OF CERTAIN FORMS OF ASPHYXIA.[1]

BY F. W. DRAPER, M. D.

Asphyxia is a comprehensive term applied to those cases in which death begins at the lungs. Traditional usage has sanctioned this application in spite of the teaching of physiology and of pathology. Its synonym, apnœa, expresses more precisely the respiratory seat and character of the fatal process, the asphyxia — pulselessness — being the last in the series of events incidental and peculiar to this mode of dying. Although objection may very properly be made, on strict etymological and scientific grounds, to the common employment and interpretation of this word, it has become so firmly fixed in use that any attempts to disallow it and to substitute another term for it would result in needless confusion.

However we may quarrel with the name, the thing signified is sufficiently specific. Bichat's terse description — death beginning at the lungs — indicates clearly the full manner and scope of the mortal process involved. The entire suspension or serious compromise of the respiratory function results, quickly and inevitably, in a chain of phenomena whose end is death. Those phenomena are few, simple, and well recognized. Their whole import is centred in the non-arterialization of the blood. All the mischief done begins and culminates in this suspension of the vital chemistry within the thoracic walls. Whatever, therefore, obstructs or interrupts this process in the blood produces asphyxia. Simple as this general statement is, the causes and conditions included under it are various and manifold. They may be grouped, however, under three principal heads: —

I. Causes which arrest the normal action of the muscles of respiration. Thus cold may act, or the muscles may become exhausted through progressive asthenia, or their nervous stimulus may be lost through division or compression of the spinal cord or of the pneumogastric or phrenic nerves. Mechanical restraint and the tonic spasm of tetanus or strychnia kill in this way.

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[1] Read before the Boston Society for Medical Observation.

II. Causes which produce a cessation of the action of the lungs themselves. The division of the eighth pair of nerves and the mechanical effects of the introduction of air or of the abdominal viscera into the thoracic cavity are examples.

III. Causes which wholly or nearly exclude the entrance of atmospheric air to the lungs. This class of causes is the one with which we are most familiar. Cases of hanging, strangulation, drowning, and suffocation (including smothering) are the most frequent and obvious illustrations. The air may be excluded by the presence of a foreign body in the larynx, trachea, pharynx, or upper part of the œsophagus. Finally, irrespirable and irritant gases cause death in this manner. The ultimate effects of all these various causes are the same. The mechanical functions of the respiratory organs being arrested, the chemical processes are quickly compromised. The action of the heart and the functions of the brain are speedily embarrassed and suspended, and death ensues. Every physician knows in a general way the usual post-mortem appearances in the bodies of persons dead by asphyxia. They are in harmony with the recognized theory of this mode of death. They consist comprehensively in an unmistakable abnormality in the color, consistency, and distribution of the blood. The dark color and the uniform fluidity of the blood, the hyperæmia of the venous system, the vacuity of the arterial system, — these are the well-known anatomical signs. But there are certain specific appearances which are peculiar to special forms of death by asphyxia, and which are not so familiar as are those just summarized. The opportunity has been afforded me in a considerable number of instances during the past year to study the anatomical changes produced by asphyxia. Actual observations of this kind have not been presented very frequently to medical societies in this vicinity. It is believed, therefore, that a review of the two cases which I have selected as illustrating in a typical way the alterations caused in the body in death by drowning and by suffocation will not be devoid of interest. I shall try to show, also, the value of a medical examination in determining the cause of death when the circumstances attending the death are obscure or are wholly unknown.

CASE I. *Asphyxia by Submersion.* — In the afternoon of January 17, 1878, the dead body of a young woman under twenty years of age was found at low tide in the dock at the foot of D Street, in South Boston. It was not known then, nor has it ever been ascertained, whence the deceased came, nor has her personal identity been established. Although the clothing of her body was entire, the hat only being missing, and although the death had been so recent that identification would have been easy, no one of the number who saw the body at the morgue made known the girl's name and residence. In the absence of all circumstantial knowledge as to the cause and manner of the death, a medical examination became necessary. The post-mortem inspection was made forty hours after the finding of the body, the weather being cold and the body well preserved. Upon an external view the following appearances were observed: The face, scalp, and neck were of a uniformly dark red or port-wine color. The lips were nearly black. The expression of the face was calm. The eyelids were half open, the eyes somewhat prominent. The conjunctivæ were suffused. The corneæ were dull and flaccid. The pupils were half dilated. The teeth were firmly opposed; the gums were bright red; the tongue was in its natural position behind the teeth. Froth was escaping from the mouth and nostrils. Below the neck the body showed very little external change. Cutis anserina was present in moderate degree. Except a few faint red patches and streaks about the scapular regions, there was no cadaveric lividity. There were no external signs about the abdomen or elsewhere of beginning putrefaction. The hands were firmly closed, the thumb in the palm. The elbows and knees were semi-flexed.

Upon section the body presented the following appearances, unnecessary details being omitted: Externally, the heart showed distinct hyperæmia, the vessels being distended with dark blood. There was no fluid in the pericardium. The pulmonary artery and venæ cavæ were full; the aorta was empty. The right cavities of the heart were gorged with dark, almost black blood, of fluid consistency, without clots. The left auricle and ventricle were empty, the ventricle firmly contracted. The valves and muscular substance of the heart were normal. The pleural cavities contained, in each side, about four fluid ounces of bloody serum. The lungs were fully expanded, emphysematous in appearance. Their color was light red, or pinkish, anteriorly; darker posteriorly. Upon section they showed a uniformly reddened color; their substance was dense, non-crepitant, exuding blood and froth from the cut surface. The bronchi, trachea, and larynx contained fine froth, slightly tinged with a pinkish color, and their mucous lining was deeply injected. Of the organs of the abdomen, the peritonæum, kidneys, spleen, liver, and intestines were hyperæmic to a marked degree, the blood-vessels being distended and the color of the viscera darkened. The stomach contained four fluid-ounces of thick brown fluid, with white masses of half-digested food scattered through it. If water had been swallowed immediately before death or in the act of dying, it was not in quantity sufficient to be made apparent in the contents of the stomach. The mucous membrane was uniformly injected, of a dark red color, and without erosions; the muscular coat was thrown into numerous prominent folds or rugæ.

The cerebral meninges were in a condition of hyperæmia, the larger vessels being fully distended, and the capillary net-work of the pia mater standing out in distinct relief. The brain substance was firm; the puncta cruenta were numerous and distinct; the lateral ventricles contained each one and one half drachms of straw-colored fluid. The vessels of the choroid plexus and the venæ Galeni were injected.

Summarizing these appearances in groups, we have: (1.) Injection of the brain and its meninges, and of the thoracic and abdominal viscera. (2.) The blood dark in color and of fluid consistency. (3.) The lungs expanded to their full extent. (4.) Froth in the air-passages and exuding from the mouth. (5.) A uniform reddening of the skin of the face, neck, and scalp. (6.) Cutis anserina.

With these post-mortem conditions before us pertaining to a dead body whose identity and history are wholly undetermined, is it possible to assign the cause of the death with accuracy? It is easy at the outset to guess that the girl drowned herself; the situation of the body when first discovered, its wet clothing, all the associations, make such a conjecture instantly convenient. But now our question is whether the results of the medical examination are of a character sufficient to confirm or to refute this ready-made supposition. The mere situation of the body and its surroundings at the time of its discovery should not be allowed too prominent a place in shaping a decision, for a number of possibilities immediately occur to mind, any one of which could reasonably account for the presence of a dead body near the sea-wall of a dock at low tide. So that there was nothing connected with the finding of this woman's corpse that by itself could be relied upon as determining the manner in which she met her death. Turning now to the evidence afforded upon a medical examination of the body, we may remark that the autopsy was available at a seasonable time. The body was well preserved, and certain distinctive appearances present at the time of the examination would have certainly disappeared wholly, or have become greatly modified and obscured, after the lapse of a few days or perhaps hours. The season of the year (midwinter), the interval after death, and the limited exposure of the body were all favorable to a satisfactory investigation. In an endeavor to interpret the anatomical appearances here presented, with a view to form a correct determination of the cause of death, one finds that they are not of equal value for this end. For example, it must be said of the condition of the brain that taken by itself it is not sufficiently characteristic to be of much assistance in the diagnosis. Cerebral hyperæmia is incidental to so many modes of dying that it is not of much value in establishing a presumption of death by a special form of asphyxia, like drowning. Casper declares that its absence is the rule in the bodies of drowned persons, and that its presence and its absence are alike insignificant as regards death by that mode. We know very well, too, that it is an appearance very commonly observed after death by poison, or by sthenic disease, or by coma. Nevertheless, it is not inconsistent with a hypothesis of death by submersion in the present instance, its relation to the diagnosis being, at the best, negative only. Again, the condition of the heart — crowded with blood in its right cavities, empty and tense on its left side — is common enough in connection with death by asphyxia, and is explained in accordance with well-known physiological principles, but it does not indicate the form of asphyxia, it is not specially significant of death by drowning, and it is met with in cases wholly independent of the element of apnœa. Moreover, while it is to be expected in death by drowning, it is not constant even here, for many deaths by submersion occur in consequence of what Casper terms neuro-paralysis, rather than by asphyxia simply, and in these cases there is no cardiac congestion. The state of the blood, too, as regards color and consistency, the remarkable and universal fluidity and depth of tint, resembling the expressed juice of dark grapes, is considered by many as a constant sign of death by drowning. It means that access of atmospheric oxygen has been cut off from the blood, and that its coagulability is thus lessened. But this result, again, is not peculiar to asphyxia by drowning. The same kind of blood-poisoning may occur in other ways, and is an incident of every kind of death which ensues in consequence of any hindrance to the entrance of the air into the lungs ; it is seen, too, in narcotic poisoning. Taylor, indeed, asserts that a fluid state of the blood is not invariably present in those dead by drowning, and that the presence of clots, though exceptional, is by no means inconsistent with that mode of death. Riedell, Orfila, Devergie, and Ogston make similar qualifying statements. Of the congestion of the abdominal viscera we must make the same comment — that it is not pathognomonic ; it does not, by itself considered, aid us in diagnosticating the manner in which this woman died. Passing from these abnormalities in the circulation, we come upon other phenomena more worthy of special consideration. The first of these is the peculiar and complete expansion of the lungs, an appearance which Casper declares to be " truly thanatognomonic." His words so fully describe the condition of the lungs in the present case that I will quote them.[1] " The appearance," he says, " consists in a complete distention of the chest by the lungs, which press close to the ribs and almost completely cover the heart ; they appear to be inflated like a balloon, and are not ordinary healthy lungs, tolerably firm and crepitating, but feel exactly like a sponge. The distention of the lungs is, in part, an actual hyperæmia, in consequence of the very violent inspiratory acts carried on at the momentary emergences of the head of the drowning person above the surface of the water, but partly and chiefly in consequence of the inhalation of the fluid in which the drowning has occurred into the lungs."

In close relation with this condition of the lungs we have another sign, which Taylor describes as characteristic of asphyxia by submersion, namely, the presence of froth in the bronchi and trachea and at the lips and nostrils. In the case before us this was well marked. The froth is different from that due to putrefaction and from that present in the air-passages of those who have died by asphyxia in other forms besides that of drowning; its bubbles are fine, generally white, but sometimes showing pinkish stain, and in immediate contact with the bronchial and tracheal walls, without the interposition of mucus. Ogston describes it as a fine lather, like that made with soap, rather than a froth. It is of course very evanescent, disappearing soon after the removal of the body from the water, and absent altogether from the air-passages after prolonged submersion. There has been some difference of opinion among medico-legal authorities with regard to the manner in which this peculiar manifestation is developed. Orfila, Devergie, and, more recently, Ogston insist that it is present only when the person in drowning has been able to raise his head above the water temporarily, and in that instant to get atmospheric air; but Casper and Taylor affirm that such emergences are not requisite, and that froth is found in the air-passages of the drowned when they could not have risen to the surface alive after submersion, and that it is found also in animals forcibly submerged. All writers, however, agree that the appearance is the result of vital action, and that it indicates that the person was living at the moment of submersion. All agree, too, in regarding it as a valuable diagnostic sign of death by drowning.

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[1] Handbook of Forensic Medicine, vol. ii., page 239, Sydenham Edition.

The striking brick-red discoloration of the skin of the face, neck, and scalp, uniformly developed, indicates the beginning of putrefaction in those parts. It aids in the diagnosis, because it is a manifestation peculiar to the bodies of the drowned when considered with reference to the condition of the other parts of the cadaver. Usually, after every other kind of death than drowning, and in every medium except water, decomposition of the human body shows its first external sign on the abdominal coverings; but in the bodies of the drowned the order is reversed, and while the rest of the cadaver remains in a state of excellent preservation, the parts mentioned, the face, neck, and scalp, take on a uniformly red or port-wine color, gradually growing darker as exposure is prolonged and putrefaction advances. Finally, the cutis anserina deserves a word of comment. This condition of the skin is hardly ever absent, even in summer, in cases of death by drowning; sometimes, however, it is observed in other forms of violent and sudden death. It indicates[1] the result of nervous shock experienced at the moment of immersion, and so it becomes a sign that the body was living at that moment. In the presence of these appearances, offered by this dead body, some of them distinctive of death under water, none of them in-

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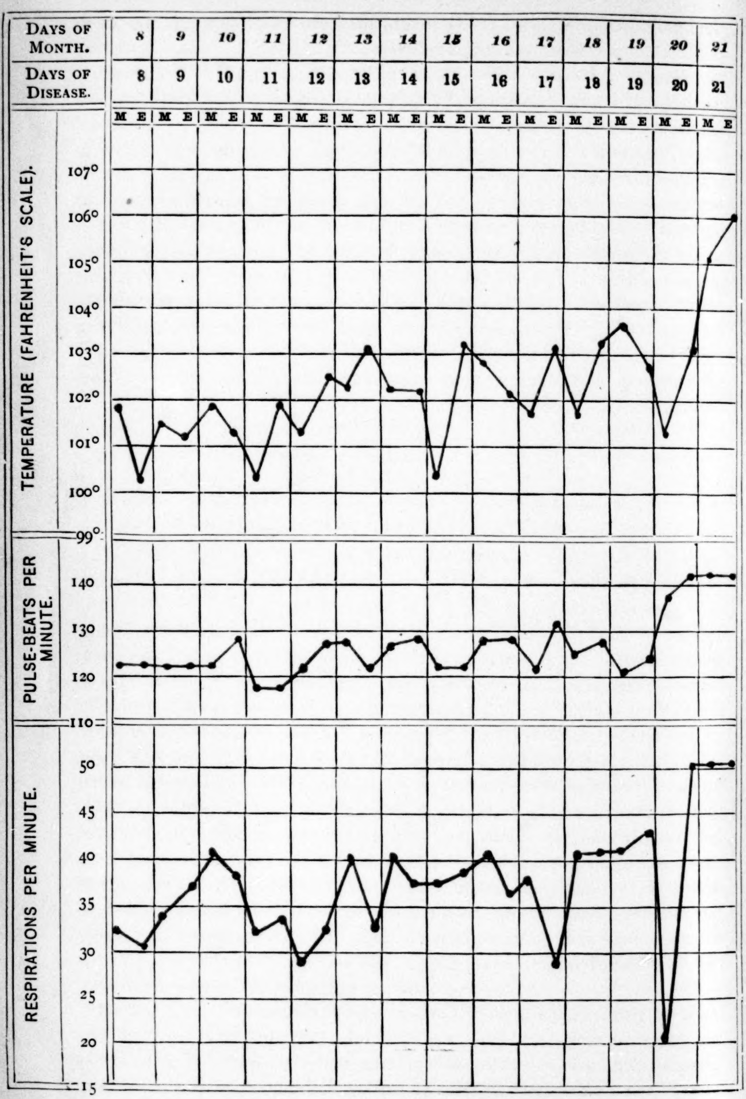
[1] Casper.

CASE OF ACUTE TUBERCULOSIS.



consistent therewith, we reach a diagnosis that asphyxia by drowning was the single cause of the girl's death.

Certain other signs reckoned valuable in such cases, were absent or unobserved in this instance: for example, the amount of water in the stomach was insignificant, the entire contents — liquid and solid — measuring about four ounces only. Although the presence of water in the stomach affords a basis for presumption that it entered that organ in the act of drowning, and so is considered as having a place among the signs of death in that manner, its absence should not be taken as evidence to the contrary. It is not to be forgotten, too, that water found in the stomach after death may have made its way thither in the natural course some time before death, for the purpose of satisfying thirst. When, however, there are discovered mingled with the contents of the stomach any foreign matters of the same description as those suspended in the water in which the death is presumed to have occurred, then the evidence is complete.

(To be concluded.)

A CASE OF SUPPOSED ACUTE TUBERCULOSIS RESEMBLING TYPHOID FEVER.[1]

BY F. MINOT, M. D.,

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THE interest of the following case centres in the diagnosis. In its general features it strongly resembles typhoid fever, and had the thermometer not been used I think most observers would have considered it to be such, with rather more catarrhal manifestations than usual.

The patient, a respectable Irish girl, twenty-three years old, entered the Massachusetts General Hospital January 7, 1879. She had been much overworked, but her health had always been good until three months previously; since then she had not been feeling well. A week before entrance she began to complain of pain in the abdomen and chest, followed by violent "cramps" in the belly and vomiting. There was no chill, no epistaxis, no marked headache. Three days later diarrhœa set in, the discharge being thin and of a light yellow color. There had been slight delirium. The above account was furnished by the friends.

The patient was somewhat apathetic, but answered questions intelligently. Pulse 112, and full; temperature (evening) 101.4° F.; breathing rather hurried. There was a bright red spot over each cheek. Tongue dry, covered with thick white scales; protruded with difficulty. Lips parched. Abdomen rather full and tympanitic. Tenderness and gurgling on pressure in right iliac fossa; also some tenderness in the left. No rose spots, nor were any found subsequently.

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[1] Read before the Suffolk District Medical Society, January 25, 1879.

From the 7th to the 10th of January nothing of special importance was noticed, except that the morning temperature was higher than the evening. On the 10th the patient expectorated a small amount of viscid mucus, slightly streaked with blood; there was but little cough. On examination dullness and deficiency of respiration were found at the base of the right back, in the axillary line. The examination was hurried, on account of the state of the patient. She was very restless at night, but had no marked delirium. January 12th, pain, swelling, and tenderness over the region of the right parotid gland were noticed. In the evening she was slightly delirious. The urine was examined, but nothing abnormal found.

From the 12th to the 18th the only new symptoms noticed were increase of cough, which was short and moist; rattling in the throat, with occasional expectoration of the same character as before; occasional slight delirium, chiefly at night; stools of the same character as before, though some of them were of nearly normal consistency. On the 18th, the tenderness and gurgling were still more marked in the right iliac fossa. The respiration in the right front was rough, with sonorous râles. In both backs there were rather fine moist râles; dullness in lower right back much less evident. No increase of splenic dullness was detected. The pain, swelling, and tenderness of the parotid gland were much diminished. The patient slid down in bed, so that the feet projected over the end, but she could turn from one side to the other with comparative ease. Through the day she was perfectly rational, and could be roused from her delirium at night. She took plenty of nourishment.

On the 20th, the following record was made: "Wildly delirious at night, at times shrieking, but at the same time able to recognize those about her; respirations 56, pulse 132 and weaker. Early in the morning the respirations fell to 20, and the pulse became stronger. No special dullness in back; coarse crepitant râle over right back, with friction sound at base, and in axillary line. Abundant moist, clicking râle throughout left back, with distinct metallic tinkling, resembling the sound of water dropping into a tin pan, in the corresponding region, and *synchronous with each sound of the heart.* Inspirations short and jerking. Through the night the delirium increased. In the afternoon profuse sweating began."

On the 21st, the temperature rose to 105°, and varied between that and 106° through the day. Difficulty of swallowing began, and increased. Face livid. Low, muttering delirium, occasionally violent. Respiration short, shallow, and rapid. Pulse very quick and weak. Occasional involuntary dejections. Profuse sweating of head and shoulders. She died at six P. M. No autopsy was permitted.

The treatment consisted in milk diet, with brandy, the amount of which was gradually increased, day by day, up to half an ounce every hour. At first chloral hydrate and bromide of potassium were given for sleeplessness, and later subcutaneous injections of morphia at night, in doses of one eighth and one sixth of a grain. Spirit of turpentine was given once, for tympanites, the only result noticed being a slight increase in the number of dejections. The patient was sponged twice daily with water.

The reasons for thinking the case to have been one of acute tuberculosis were the peculiar range of temperature, as shown in the annexed chart; the previous indisposition during a period of three months; the absence of rose spots and of enlargement of the spleen; the character of the delirium; and the predominance of physical signs indicating more important pulmonary disease than mere bronchial catarrh.

RECENT PROGRESS IN SYPHILOLOGY.

BY EDWARD WIGGLESWORTH, M. D.

Syphilis communicated by Tattooing. — Drs. Maury and Dulles report[1] at length the valuable results of a careful and very instructive investigation of twenty-two cases exposed to inoculation with the virus of mucous patches, in fifteen of which syphilis followed. Attention was called to these cases by the fact that a man having constitutional syphilis presented himself, in September, 1877, for treatment at the Philadelphia Hospital, bearing upon a tattooed figure on his arm a sore which had the characteristics of the primary lesion of the disease. The figure had been placed there two and a half months previously by a professional tattooer, who had moistened his pigments in whole or in part by inserting in his mouth the needles he used. The police were notified, active investigation was at once commenced, and in about a month the tattooer was arrested, and more than twenty-two of his victims were soon discovered and examined. The artist, J. K., theoretically a painter, actually a vagrant, was filthy in appearance, a very hard drinker, and a constant chewer of tobacco. He acquired syphilis in February, 1877, was under treatment at intervals, tattooing between whiles as occasion offered, until April 14th, when he again entered the hospital on account of mucous patches of the mouth and about the anus. He left the hospital uncured May 16th, and recommenced his tattooing, and from this time onward seems to have communicated his disease to most of the subjects of his art, — a strong argument in favor of locked hospitals for such patients. He returned to the hospital June 20th, his condylomata still flourishing. "He was discharged," like a shell into a powder magazine, "August 2d, for insubordination," and October 6th arrested, and at Dr. Maury's suggestion committed to the house of correction, the mucous patches still existing.

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[1] Amer. Jour. of the Med. Sci., January, 1878, page 44.

His method of tattooing was as follows: The outlines of a figure selected from a book of plates were pricked into the skin with a few needles set in a holder, the pigment being India ink rubbed up with water. He then sucked the residue of this pigment from the needles, and thrusting them thus moistened into a bottle of powdered vermilion would insert what adhered. This was repeated until enough vermilion had been employed, when in many cases he would spit upon the finished tattoo, and rub it dry with his hand or a dirty cloth. In some occasions both pigments were moistened with saliva.

The reported histories of the cases examined are arranged in three classes: I. Where the patients never had syphilis, and yet, as far as now known, were not inoculated; four cases. II. Where the patients had syphilis before being tattooed; three cases. III. Where syphilis had never existed, but was communicated by the tattooing; fifteen cases.

To attain as much thoroughness as possible, a definite plan of examination was first prepared, and each investigation conducted according to it: every patient was personally examined and scrutinized from head to foot; the asking of leading questions was avoided, especially in regard to the primary lesions, and special inquiry was made to exclude the possibility of the syphilis, where it occurred, having been acquired in some other way than by the tattooing. Of the many cases examined twenty-two are reported as being of sufficient scientific interest as well as of sufficient accuracy.

Résumé. The unmixed salivary secretion cannot communicate syphilis, though it may act as the carrier of the virus, for Classes I. and III. were equally exposed to the risk of infection, and yet Class I. escaped, and the immunity must be due to a fortuitous absence of the poison from the saliva.

In two cases water was used with one pigment, saliva with the other, and the primary lesion had its origin unmistakably at the part where the latter was used. The tobacco juice seemed to have no effect upon the virus, either in diminishing or increasing its activity. The appearances of constitutional infection (primary lesion) occurred after a period of incubation varying from one to seven weeks, general symptoms after three to ten. These terms may or may not have been as stated by the patients.

The initial manifestation, that is, a chancre excited by a specific irritant, was always a papule, which papule, like any other of its class, passed on under accidental circumstances to excoriation, pustulation, or ulceration, or, in one case, remained from first to last only and simply a papule.

Diday's theory that virus from a primary lesion causes an ulceration, from a secondary one an excoriated sore, is not supported by the facts in these cases. Multiplicity of the initial lesion, present in many cases, was due to the multiple inoculation.

Noteworthy was the frequency with which the papules were located on the penis and scrotum. This occurred in twelve cases, in seven of which the number was very great. In many the papules were on and within the prepuce and about the corona glandis, and were in their physical features exactly like chancres.

"The theoretical conclusions of our investigation are, we think, indisputably confirmatory of the view that *the virus from secondary syphilitic manifestations is in a high degree inoculable, that the primary lesion following such inoculation is a true chancre, and that with this begins constitutional syphilis, differing in no essential point from that contracted from a primary syphilitic lesion.*

"The practical conclusions are inseparable from the theoretical, namely, that too great caution cannot be used, lest by any means the virus of inoculable lesions be transferred to innocent persons. The hands of the surgeon, his instruments, bandages, or other appliances should be most scrupulously cleaned after use about syphilitic patients. Dentists may especially take to heart this lesson, which is the more deeply impressed upon our minds because at this time we are investigating a case where an unsuspecting woman was inoculated with syphilis of a most malignant type while under a dentist's hands.

"Tattooing, we think, might well be forbidden in the army and navy as a useless and perhaps pernicious practice, one which may injure the men and prove an expense to the government by bringing into hospitals and on the pension lists some who might otherwise be in active service.

"We think, too, that no false sentiment should prevent the distribution of such warning to the community as shall acquaint them with the sources of danger alluded to as well as the possibility of syphilitic inoculation in the acts of kissing, nursing, using in common table utensils, towels, or anything which may have come in contact with a syphilitic lesion.

Syphilis communicated by a Bite. — Rohé adds[1] another to the list of histories of unusual infection. J. W., aged twenty-two, mulatto, oyster-shucker, had a fight about Christmas, 1877, and was bitten in the left side of the nose. March 17, 1878, he reports: Wound healed readily, but became sore a month later, painful and swollen. In a few weeks more, the submaxillary glands, especially upon the left side, became enlarged and tender. There was fever, sore throat, and malaise. Early in March a macular and papular eruption appeared upon the breast, back, arms, buttocks, and thighs. No cicatrix on penis, and any previous sore denied, though a clap was confessed.

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[1] Archives of Dermatology, vol. iv., No. 3, July, 1878.

The lesion at the site of the original injury consisted of an ulcer with indurated base, seated upon the left alar cartilage. Submaxillary and post-cervical glands enlarged, pharynx strongly injected. Trunk, arms, and thighs covered with a well-marked erythemato-papular eruption, the spots fading from the chest and being succeeded by disseminated pustules, which were also numerous upon the neck.

The inflicter of the bite was hunted up. He had a large mucous patch on the left cheek near the labial commissure, which had never been treated, though existing for months. Under bichloride of mecury internally and calomel dusted upon the primary induration, the patient, J. W., rapidly improved, and was at time of the report free from any lesion of the skin.

Syphilis and Vaccination. — It is reported[1] that in a small village near Frankfürt-on-the-Oder twenty-six children were vaccinated from a vaccinifer subsequently found to be the victim of hereditary syphilis. Twelve are said to have escaped infection, while the remainder suffered from constitutional disease. Lane[2] believes that a healthy person inoculated with lymph from a diseased child could not in one week elaborate a lymph capable of infecting others vaccinated with it, because the blood mass could not in such time become thoroughly poisoned. Early general infection seems to him impossible, but as to the secretions, whether natural or morbid, which are derived from diseased blood, he can see no reason why they should not partake of the contagious quality of the fluid from which they are formed.

Venus Vulgivaga. — The annual report for 1876 of the Imperial Hospital on the Wieden at Vienna states[3] that since the "health-books" of the prostitute class have been consulted by independent and competent physicians the women applying as patients to the wards for syphilis have exhibited only primary lesions, thus shortening the time required for treatment. The exceptions to this are the non-registered women, the free-rangers, who manage to escape supervision. The advantages of registration from a sanitary point of view manifest themselves more and more every year, and it is to be hoped that this soon may become a universal custom.

A letter[4] from St. Louis, arguing in favor of the reënactment of the "social-evil ordinance," hawked at and killed by pseudo-moralists, remarks, "When we compare the old law in its sanitary and police aspects with the present state of things, we seem to be a perfect Sodom or Gomorrah." Those most competent to form an intelligent and conscientious opinion advocate its reëstablishment: the police, for it kept vice within due bounds; the moralist, for publicity prevented prostitution, and registration afforded the opportunity of seeking and saving those who were not already lost, but only on the road to ruin; the physician, for venereal disease was notably decreased; and the scientific sanitarian, for protection was afforded to the innocent indirectly threatened by the very existence of disease.

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[1] Gazz. med. Ital. Lomb., February 2, 1878, page 50.

[2] Lancet, April 21, 1876, page 562; Archives of Dermatology, April, 1878.

[3] Schmidt's Jahrb., Bd. 180, Jahrg. 1878, No. 11, page 208.

[4] JOURNAL, January 9, 1879, page 70.

In the tenth annual report of the Massachusetts State Board of Health, Dr. C. F. Folsom, in an admirable paper, says, "If control of syphilis and prostitution seems impracticable in the present state of our public feeling, there is at least one thing which should be done, and that is to give facilities for hospital treatment to the sufferers from venereal disease. In the opinion of the board, this need is now an urgent one in our State, which, if properly met, may be the means of doing great good. With all its noble charities Boston is an exception to the general rule of large cities, in that it does not properly provide for the treatment of the most contagious disease known, — one, too, in which the results are so far reaching and disastrous that they are often felt for a life-time, and in succeeding generations visiting the innocent frequently with greater severity than the guilty."

To the shame of Boston it must be said that at present for such disease there is neither a hospital nor yet even a ward in any general hospital in the city; and many suffering patients are actually refused admittance into existing institutions, and left to spread this most dreadful of maladies throughout the community. The demand for a hospital for this disease, or at the very least for wards and a thorough system of baths, increases daily.

(*To be concluded.*)

NEW YORK ACADEMY OF MEDICINE.

March 3d. *A New Classification of Pulmonary Phthisis.* — Dr. James R. Leaming read a paper entitled A New Classification of Pulmonary Phthisis, with Practical Considerations. The writer commenced by speaking of the tendency at the present time to rearrange, classify, and investigate with minuteness all forms of disease, and, after alluding to what had been accomplished in this respect for the group known as the "typhoid diseases," said that it was highly desirable that the same should now be done for the affections embraced under the term phthisis. As to the clinical features of ordinary pulmonary consumption, the graphic description of Sydenham, written two hundred years ago (which was quoted), was so perfect that little or nothing could be added to it. But of late much attention had been devoted to its pathology. Of the earlier investigators, Laennec had been of the opinion that almost without exception the various forms of phthisis were tubercular, while Broussais had held to the opinion of the ancients that they were of an inflammatory nature. Laennec's well-earned fame had been the means of tiding some errors down to the present time; but during the last few years our modern pathologists, and particularly those of Germany, had clearly demonstrated that there were other forms than the tubercular, and the highest English and American authorities now taught this. In the course of a lecture on phthisis delivered at the Bellevue Hospital Medical College, December 10, 1878, Dr. Andrew Clarke, of London, divided it into three natural classes: (1.) The group in which the dominating anatomical element is what is called tubercle. (2.) The group in which the dominant destructive agent is some form of pneumonic exudation. (3.) The group in which the dominant element is some kind of fibroid tissue. Dr. Leaming said that he adopted this classification in part. The tubercular and fibroid forms were entirely different in kind, and were indeed to a great extent opposite diseases. As to the term "catarrhal pneumonia," now so much in vogue, it was made to include almost anything, and he did not approve of the name. The classification which he preferred was founded both on clinical observation and post-mortem study, and was as follows:—

Class I. Tubercular phthisis. First division, uncomplicated tubercular lung. Second division, tubercular lung, with fibroid pleura. Class II. Fibroid phthisis. First division, fibroid lung and fibroid pleura. Second division, fibroid lung and pleura complicated with tubercle.

Uncomplicated tubercular lung was doubtless quite rare, and the writer had distinct recollections of but three cases, of which no notes had been taken. Louis had said that nothing was so frequent in phthisis as adhesions of the lungs to the pleura, and Dr. Leaming had seen only two out of one hundred and twelve cases in which, at the autopsy, the lungs were found free throughout their whole extent. The only history of the first variety mentioned was such that the presence of the disease might easily be overlooked. The diagnosis was difficult, and not infrequently the first sign of trouble was when a cavity had been formed. It usually occurred in early adult life and in those exposed to hardships, poor food, and other depressing influences. At first the only auscultatory signs were some deficiency and slightly raised pitch of the respiratory murmur, unaccompanied with râles, and without any cough. When the tuberculous nodules were softening there were four, cough, expectoration, and the rest of the symptoms of phthisical trouble, and it was then that fatal hæmorrhage was liable to occur. The physical signs of a cavity were not so distinct as in fibroid phthisis, since the latter was surrounded to a great extent by healthy lung tissue, which was not a good conducter of sound, but the low pitch (especially in expiration) of cavernous respiration and other characters denoting its presence were usually not lacking. The case might perhaps end in general tuberculosis.

The treatment was mainly useful in the way of prophylaxis in those liable to the affection, and there was one remedy which seemed to have both preventive and curative qualities, namely, the chloride of ammonium. Quinine was of service as an anti-periodic, and other tonics, such as iron and cod-liver oil, were also useful; while stimulus in appropriate forms was also recommended, when well borne. Atropia was to be employed for the checking of night-sweats, and digitalis if the heart's action was weak and irregular.

Strapping the chest with adhesive plaster was often of great benefit, as was also the application of small blisters, which sometimes had the effect of inducing adhesions, as in nature. In practicing forced expansion there was considerable danger of bringing on pneumorrhagia when there were new cavities present. Fatal hæmorrhage rarely occurred, however, when the cavity was a week old. Medicated inhalations were pretty sure to disappoint the expectation of both the physician and patient if much reliance were placed upon them, because the residual air in the lungs always resists the introduction of irritating vapors.

Where there were tubercular concretions following fibroid in the pleura (the second division of the first class of cases), fatal hæmorrhage was more apt to occur than in uncomplicated tubercular lung, although we would naturally expect it just as frequently in the latter. In consequence of the erosion of arteries, the patient was sometimes drowned in a few moments in his own blood; and this was not infrequently a great surprise to the physician as well as to the friends. Even if the medical man were on hand at the time, and all prepared to perform tracheotomy in order to relieve the air-passages until a clot might form, it was doubtful whether life could often be saved under the circumstances; and of course medication was of no avail, for lack of time.

Another accident which might happen (and which was also liable to be met with in cases belonging to the first division) was the occurrence of hydropneumothorax, from the softening of a concretion giving rise to an opening into the pleural cavity. This was always followed by great pain and dyspnœa, and was apt to result fatally at no distant date, although the patient might sometimes survive for months and even years. Recovery was rare after it. The indications in the treatment were to secure rest, relieve pain, and control inflammation; and, as in other forms of pulmonary trouble, strapping the chest was of great service. The first class of cases of phthisis was a grave one, but, fortunately, they were not nearly so frequently met with as those of the second class.

In fibroid phthisis the process in the lung was directly opposite to that seen in tuberculous phthisis; the one being a destruction of function only, while the other was a destruction of tissue. In the first division of fibroid phthisis (fibroid lung with fibroid pleura) the disease was quite amenable to treatment. It was frequently mistaken for tubercular phthisis, with cavity; and the writer believed, indeed, that nine tenths of all cases of phthisis commenced with interpleural plastic exudation. Hence it was of the utmost importance that treatment should always be begun as early as possible; and Dr. Leaming thought that the day was not far distant when the mortality from phthisis would be much less than it has hitherto been, on account of the more general recognition of these facts. Anything that tended to lower the vitality of the system might be a predisposing cause of fibroid difficulty. Thus, a faithful wife who had exhausted her strength by long attendance on a consumptive husband not infrequently became its victim, and it was the occurrence of such cases, he thought, which had principally given coloring to the supposition that phthisis was transmissible. Plastic exudation in the pleura, which was to be regarded as a safeguard of nature, was often immediately reabsorbed; but if it were not reabsorbed, it became organized, and the process went on extending. In the second class the disease always commenced with fibrination of the pleura, and as this progressed, the air-sacs beneath were more and more pressed upon, and the chest itself contracting the patient gradually yielded, as though some strong anaconda were tightening its coils about him. Later, fibrous bands were formed through the lungs themselves, and the heart also became involved. At the autopsy a mass of fibroid tissue was often found gluing the heart and lungs together, and the former was sometimes so much displaced that the apex was found at the level of the fourth rib.

The early physical signs were the same in each division of the second class, and consisted principally of a slight "parchment-like" dullness on percussion and soft, tearing râles on auscultation. These râles might perhaps not be easily recognized by an unpracticed ear, but even a beginner would notice that the respiration was harsh, and if he would listen attentively (at the same time taking care to make his own breathing correspond with that of the patient) he would perceive that it was made up of distinct moist râles, very soft and frequent, beyond which might be heard the true respiratory murmur, like the distant roar of the sea. With such signs present, two facts would be evident: first, that there was an exudation in the pleura; and, second, that the lungs themselves were free. If the mistake were made of supposing that the trouble were simply bronchitis, and an expectant plan of treatment adopted, adhesions would be formed, and then still further exudation would follow, until the most serious consequences might result.

The treatment was easy enough at the beginning, but became more and more difficult as the case advanced, although even an exudation that had lasted several weeks might ordinarily be cured. It was recommended that the patient should take from six to ten grains of chloride of ammonium every waking hour, and should practice chest expansion, walk as much as possible in the open air, and live to a great extent on a milk diet. If this medication were not successful, the bichloride of mercury, in doses of about one twentieth of a grain three times a day, should be substituted for the chloride of ammonium, and kept up for several months. It had not only a good effect upon the pathological condition present, but also, the writer believed, quickened the appetite and increased the strength generally. But some cases would not yield even to such a course as this, and then it was advised that mercury should be given to the point of salivation, as the only thing that would offer a chance of saving the patient. The combination of calomel and Dover's powder was often of great service; but if the remedy were not well borne by the mouth, it should be applied externally, in the form of oleate of mercury. The careful use of mercury was regarded as most beneficial in these cases, in the hands of a skillful physician who knew how to use his tools. In the latter part of the last century Benjamin Rush used to cure patients of what he called the third stage of consumption by the use of a combination of calomel, nitrate of potassa, and tartrate of antimony; and Dr. Leaming said he had no doubt that these were cases of fibroid phthisis. Chest expansion, practiced perseveringly, should never be neglected, and a very good plan was for the patient to raise the arms over the head and then bring them down to the hips in such a way as to force the air into the lower part of the lungs. Accurate measurements of the chest at different points and under different conditions as regards inspiration and expiration should be taken and recorded; and thus the patient would feel encouraged if he found that his vital capacity were increasing. One of the best of all the means for increasing chest expansion was probably riding on a fast-walking horse. Care should always be taken not to do violence to adhesions by too active exercise, which was apt to occasion pulmonary apoplexy. When this accident occurred, complete rest and strapping of the chest were recommended. The importance of climate was alluded to, and that was specially advised (as a rule) where there was a cool or cold air and a balsamiferous forest or an abundance of pine-trees, with freedom from malaria. If expansion of the chest were useful of itself, its benefit was greatly enhanced by a pure atmosphere. Cheerful amusement and good companionship were very necessary for the welfare of the patient, and in all cases change was of vital importance. That one would do best (other things being equal) who went to the most new places; and hence sea-voyages, the change from city to country, from mountain to sea-shore, and the reverse, would all prove of service. As a rule, men improved most where they had a chance to rough it in the open air, while women did best when they had the most congenial society. Fortunately, in this country, with the South, California, Colorado, the Adirondacks, etc., and but short voyages to Bermuda and the West Indies, we could have every variety of climate that was desired. If, in spite of all our efforts, the disease still persisted, it might be necessary for the patient to keep for a time to bed, where of course only limited chest expansion could be possible. By the use of proper stimulus, concentrated food (perhaps rectal alimentation), and the cautious administration of mercury, he might even then improve so that he could get about again.

In the second division of the second class (fibroid lung and pleura, complicated with tubercular concretions) the great proportion of cases were found. The disease was primarily fibroid, the tubercular element being adventitious. Niemeyer had said that the thing most to be feared in catarrhal pneumonia was that it might become tuberculous. This was certainly emphatically true of fibroid phthisis. When the tubercular element supervened, there were night-sweats, hectic, and all the well-known symptoms of advanced pulmonary disease; and the formation of a cavity was announced by the appearance of the characteristic expectoration. The physical signs were usually very distinct on account of the fibroid tissue in the lung and pleura, this being a good conductor of sound. After a cavity had been formed the patient might perhaps begin to sleep well and have an increased appetite; and if it so happened that the attending physician had been changed about that time, great injustice would probably be done to the one from whose hands he had passed. So, too, a number of quack medicines had gained great popularity because patients had chanced to be employing them just at the time that this improvement took place. It was seldom, however, that the relief was of long duration, or was so complete as might be inferred from the above, as other concretions were very likely to be undergoing softening at the same time. The condition of the cavity itself might be studied with advantage to the patient. Thus when the physician knew the connection of the latter with the bronchus, he could often effectually prevent cough without being obliged to resort to opium for the purpose. Consequently he could instruct the patient to take such a position as would soonest evacuate the cavity. In 1863, Dr. Leaming said that he had had the honor of reading a posthumous paper upon this subject by the late Dr. Cammann. Cavities in the lungs were not, however, always of tubercular origin, as they might be due to fibroid or to gangrene, or else be of traumatic origin. Thus cavities had been known to result from paracentesis thoracis, gunshot wounds, bayonet thrusts, etc. But whatever might be the source of a cavity in a fibroid lung, its presence there was always of grave import, for the reason that it was very likely to become tubercular.

As to the treatment, this consisted in a judicious combination of the methods already suggested for both varieties of phthisis. Our supreme effort was to be to prevent the tubercular complication, where this had not already occurred; but if there were tubercular concretions present, then we were to aim at preventing the extension of either form of disease.

In fibroid phthisis the question of diet was always a matter of great importance, and the restriction of the patient to milk exclusively for a time, at least, was often followed by beneficial results. In some individuals it was necessary to form the habit of living upon a milk-diet, and but a small quantity could be taken at first. Carnivorous animals were, as a rule, lean, and had very small stomachs, and the same was true of meat-eating human animals; who were peculiarly liable to fibroid phthisis. It was probable that one benefit which large drinkers of ale, beer, etc., derived from the practice was the expansion of the stomach thereby gained, which was favorable to general nutrition. From two to three quarts of milk *per diem* should ordinarily be taken in these cases. The deposit of fat was to be regarded as positive assurance that the disease was held in abeyance, and when the patient was found to be increasing in flesh, therefore, he might be permitted to return to some extent to his ordinary diet. By way of counter-irritation small blisters were recommended; and as fibroid disease appeared to be the result of depressed vitality, everything likely to invigorate the vital forces was advised. Dr. Leaming said that he believed fully in the tonic effect of mercury in small doses, as well as in its utility in ridding the system of injurious products. Of course, care was always to be taken in its administration; but because this was necessary, and because it had often been abused, was no reason why it should not be employed. What was to be thought of a surgeon who was afraid of a sharp knife? Mercury had been well called the Samson of Medicine, and the writer believed that it was time that it should burst asunder the withes that had so long bound it, and once more put forth its mighty strength.

Prof. Austin Flint, having been called upon to open the discussion upon the paper, remarked that the classification suggested was a novel one, and that at present he was not prepared either to accept or to take issue with the views of the author. He was quite willing to acknowledge Dr. Leaming's zeal and industry in his investigation of the subject; but he felt forced to say that there was one part of it in regard to which he believed him to be in error, and that was his opinion as to the relations of pleurisy to phthisis. For his own part, he thought there was every reason to suppose that the former was ordinarily secondary to the latter; instead of phthisis being secondary to the pleurisy, as the writer contended. In regard to the classification of phthisis, he thought there were two forms which could be considered clearly distinct, namely, acute tuberculosis and purely fibroid pulmonary disease. There then remained a third class of cases of chronic trouble, in which these two varieties were often found combined, and it was difficult to say just by what term the affection was to be designated. A great deal of confusion had been caused by nomenclature, and not only the beginner, but also the more advanced student of the subject, was apt to be very much perplexed by the multiplication of terms employed, and the lack of harmony in regard to their use among various authors. The point at issue he believed to be, in what way true miliary tubercle was to be regarded, and what was its relation to chronic phthisis, with softening, formation of cavities, etc. The views accepted in regard to this matter would to a great extent govern the observer in adopting a classification. Niemeyer's statement in regard to chronic catarrhal pneumonia (the equivalent of ordinary phthisis, as generally understood), which had been quoted by Dr. Leaming, seemed somewhat paradoxical; but there were undoubtedly numerous cases in which there was at first pneumonia, and afterwards the complication of tubercle. Whether the third class of chronic trouble mentioned could be divided into two distinct groups, *pneumonic phthisis* and *tubercular phthisis*, was a question; but it was, at all events true, as had been stated, that there were cases intermediate between acute tuberculosis and fibroid phthisis. Dr. Flint did not feel that at present he could conscientiously commit himself definitely in regard to so large and important a subject; and said that he preferred to wait until still further researches, based both upon clinical and histological data, had thrown more light upon it.

Prof. A. L. Loomis said that he had been both interested and instructed by Dr. Leaming's paper; but still it seemed to him that it must necessarily be very difficult to make any division of phthisis in which there should be no clashing of these essential points, namely (1) ætiology, (2) morbid anatomy, and (3) clinical history. The reason for this was that the best authorities were not yet in harmony in their views in regard to some of the most important and constant histological changes met with in chronic pulmonary disease. He did not understand very clearly what the writer meant when he spoke of "fibrination" of the pleura, or of plastic exudation undergoing organization; for there could be no doubt, he thought, that the plastic material undergoes absorption, while what is left as a result of the process is due to hyperplasia, or an increase of connective tissue in the part. If Dr. Leaming were right in his view that the pleuritic trouble anteceded the pulmonary, he thought it followed that great pathological changes must take place in the pleura before any evidence of their occurrence could be detected; for in a large proportion of cases important changes in the lung itself were discovered long before there was apparently anything abnormal about the pleura. Quite frequently bronchitis and peri-bronchitis, by means of which there was more or less plugging up of the tubes, preceded chronic consolidation of the lungs. This was the point at which Dr. Leaming would take issue with the accepted views of the profession, and it was a difficult matter to decide, for the reason that the post-mortem examinations necessary for the purpose should be made very early in any given case. When the disease was in an advanced stage, it was somewhat of an assumption to say just where the process had commenced. Auscultatory signs were not to be relied upon, because the best authorities often differed entirely as to the significance of these in various affections. Dr. Loomis stated, in conclusion, that he agreed with Dr. Andrew Clark in his division of phthisis into three forms (a classification which, however, had been adopted here by many long before Dr. Clark's visit), and said that as far as he was able to form an opinion on the subject at present, it was more satisfactory to his mind than any other.

Dr. E. D. Hudson, Jr., thought that pleurisy must be recognized as one, at least, of the causes of phthisis, and said that almost every student soon noticed the connection of pleuritic adhesions with not only the later, but also the earlier stages of phthisis. Dr. Leaming had long been the advocate of the recognizability of distinctive and well-defined signs of interpleuritic exudation, and he himself had often had an opportunity of personally verifying his statements. In this connection he related a case in which the patient had had, ten years ago, an attack of pleurisy with effusion, without any evidence whatever of any trouble in the bronchial tubes or the lung itself, and yet to this day, when auscultation of his chest was practiced, fine, dry, crackling râles could be distinctly heard just under the ear. Attention was also called to the fact that pleuritic adhesions, without any disease of the lung at all, were very frequently found in autopsies, and it was considered highly probable that in a considerable number of such cases fibroid phthisis would have resulted had the patients lived. The pathognomonic sign of recent interpleural exudation, as pointed out by Dr. Leaming, was a subcrepitant râle, heard directly under the ear (in addition to the normal respiratory murmur beneath), and comparable to the tearing of a piece of wet cloth. For some time past he had been teaching his students thus to detect interpleural adhesions, and he believed that the more general recognition of these as a factor in the production of phthisis would in many cases throw no little light on the diagnosis, pathology, and treatment.

Prof. E. G. Janeway said that he remembered two cases in which acute disseminated tubercle had undoubtedly resulted from pleurisy, through a kind of septic infection, the *modus operandi* of which was as yet unexplainable. Without any previous trouble in the lung, there was an eruption of tubercle throughout the body following the interpleural trouble. That phthisis was ordinarily to be ascribed to the effect of pleurisy, however, he did not believe. To him it seemed evident that autopsies distinctly showed that the disease in the lung was the older of the two where both are coexistent; if the observations were made in those portions where the process was more recent. In the vast majority of cases, therefore, he thought the phthisis could not be ascribed to antecedent interpleural adhesions. As to pure fibroid of the lung, he believed it to be a very rare condition. If, however, by fibroid was meant a thickening of connective tissue associated with the presence of lymphoid cells, it was sufficiently common. In regard to tubercle, while pathologists were not in harmony as to what constitutes its histological characteristics, and there was still much confusion of the terms used in connection with it, there seemed to be at present a strong current of opinion back towards the view that tubercle was really of much more frequent occurrence than had been for a time supposed. In the last edition of Niemeyer's work there was a considerable modification of the opinions held by that author when he wrote it, and Rindfleisch, it was noticeable, went back further towards the former position held upon the subject than any other authority. It was probable that there was as a rule more of tubercle in phthisical lungs than Virchow had been in the habit of teaching, and the speaker imagined that even Virchow was now modifying his former views to some extent. Coming now to the subject of acute miliary tuberculosis, he believed that there was still much to be learned in regard to it, and stated that he had often been surprised at its peculiar manifestations. Only during the last few days, while making an autopsy in the case of a patient who had been suffering from disease of the heart and aorta, and in whom no pulmonary disease had been suspected, he found a cheesy bursa upon the thigh, which led him to make a full examination of the various organs, when he found an eruption of miliary tubercle throughout both lungs, the kidneys, the liver, and all the rest. Cheesy bursæ were also discovered over each trochanter and in various other localities. Such cheesy collections were supposed to be the origin of tubercle, but they were not always to be found. In this case during life only a few râles had been heard, and the temperature had never gone above one hundred; while at the autopsy the tubercular deposit in the lungs was found so generally diffused that it could only have given rise to the ordinary signs of bronchitis. The experiments of Roberts and others in inoculating rabbits with the sputa of tuberculous patients are of interest as apparently going to show that tuberculosis was allied to other infectious diseases. Dr. Janeway thought that at present we could not decide on any definite classification of phthisis, based on either histological or clinical study; but for his own part he had been driven to look at the disease from the standpoint of where the trouble was found to commence. Thus, we had (1) tuberculosis beginning at the apex, (2) infiltration of consecutive parts of the lung, and (3) infiltration of the whole lung to start with.

The president, Dr. Fordyce Barker, regretted that the different speakers had not devoted some attention to the subject of treatment, since some novel therapeutical views had been advanced by the author of the paper, and said that he would like to inquire how Dr. Leaming got his patients to take ten grains of chloride of ammonium every hour, to which the latter replied that he sometimes prescribed the remedy simply in water, sometimes in carbonated water, and sometimes with syrup of wild cherry, and that he found no difficulty in giving it.

HEALTH, LUNACY, AND CHARITY.

The bill to abolish the State Board of Health and the Board of State Charities, and to create a State Board of Health, Lunacy, and Charity, has passed to its final stage in both branches of the legislature, and will probably become law, just as the twentieth state board of health, established on the Massachusetts principle, is created in Delaware. We have already given the essential provisions of the new bill, and have expressed our decided disapproval of it. It was opposed in the house of representatives very ably indeed by Hon. Chas. J. Prescott, of Boston, to whom the thanks of the medical profession and the Board of Health are due for his generous appreciation of their services; and a very decided opposition to the consolidation was manifested, but the crack of the party whip brought the political forces enough into line to carry the measure through by a vote of two to one.

It is useless to regret the matter now, or to bewail the fact that Massachusetts has given up its position as a leader among the States, with the mistaken view, we think, of stealing General Butler's thunder in the next election. The governor has the appointment of the members of a new board, the creation of which he has very strongly urged. If he uses his rare privilege wisely, it will still be possible to make the new arrangement a means of doing great good, although, in our opinion, a better plan might have been and should have been adopted. Without doubt the governor's ear has been open, in the consideration of this subject, to men whose presence in any important board would be regarded by many persons as a public calamity, although it is not known how great their influence with him is; and there are many men and women who " like that kind of work " who make up for mental weakness by lingual activity, and who would be as ready to take places on the new board as they are incompetent to fill them. Still, there are enough good men in the State, and we are told that it is the intention of the executive not to interfere with the usefulness of the Board of Health, but that it is his hope rather to widen its sphere. If he can wisely combine three so distinct works in one commission, and can succeed in getting able, discreet, and highly honorable persons to perform that vast amount of service gratuitously, without curtailing the work of the Board of Health, and at the same time provide for the supervision of insane asylums and successfully administer the state charities without the faults of the present system, he will deserve the greatest credit.

MEDICAL NOTES.

— In view of the prevalence of scarlet fever at Newport, R. I., Dr. H. R. Storer has called the attention of the board of aldermen to their neglect of sanitary precautions in that town. He says the board has refused to transfer its powers to a competent board of heath; children of infected families are allowed to attend public and private schools; open funerals are permitted, and alleged defects in the construction of the sewers are not corrected.

NEW YORK.

— At the recent special meeting of the County Medical Society, held for the purpose of discussing the responsibility of the medical profession for the abuses of free medical services, one of the speakers related the case of an applicant at one of the dispensaries who demanded that he should receive attention before his regular turn, on the ground that he had a carriage waiting outside for him at the rate of a dollar an hour. Another told of a man, apparently in the most abject poverty, who was received as a free patient in the Manhattan Eye and Ear Hospital, and, while an inmate of the institution, died from an attack of pneumonia; yet when his clothing was examined after his death, the sum of fifteen hundred dollars was found in his pockets.

— Madame Gerster, the distinguished prima donna of the Mapleson company, very kindly consented to sing at a concert given in aid of the German Hospital and Dispensary at Steinway Hall, a day or two before her departure for England, and as there was a very crowded house (it being her farewell appearance in America) a handsome sum must have been realized for the charity.

CHICAGO.

— At the last meeting of the Chicago Medical Society — the annual meeting — by a unanimous vote a committee was appointed to memorialize the new mayor to hold the health department apart from political influences, to have it conducted in the interest of the health of the people, and to retain in office Dr. De Wolfe for his ability and efficiency as a health officer.

— At the annual meeting of the Chicago Medical Society, Dr. Edmund Andrews was elected president and Dr. R. G. Bogue vice-president.

— The uncertain and undefined reference of a correspondent to certain animadversions upon Dr. Jackson, as printed in the JOURNAL of April 3d, certainly does injustice to that gentleman. There have been in the papers no animadversions on Dr. Jackson except in regard to his difficulties with the managers of the Woman's Hospital of the State of Illinois. Of that difficulty there are two differing accounts, and, like many other questions that have positively two sides, perhaps it is not worth disputing about. Dr. Jackson has ended the controversy by promptly resigning from the hospital.

WASHINGTON.

— The select committee of the house of representatives on the origin, introduction, and prevention of epidemic diseases in the United States consists of Messrs. Young, of Tennessee, Gibson, Hooker, Goode, Morse, Smith, of Pennsylvania, Updegraff, of Ohio, Van Aernan and McGowan.

— In the senate April 12th, in the consideration of the legislative appropriation bill, the clause authorizing the secretary of the interior to prescribe regulations under which cattle affected with the disease of pleuro-pneumonia may be seized, appraised, and slaughtered, and payment therefor made out of moneys appropriated, was discussed at some length with respect partially to the probable powers of the National Board of Health in this particular, and was finally accepted as modified to the effect that the committee on agriculture be instructed to consider the propriety and necessity of legislation to check the introduction and spread of contagious diseases among domestic animals, etc.

— Congress has now passed bills which define more clearly and positively than before the duties and powers of the National Board of Health, giving them authority to request the detail of a medical officer by the president to serve in the office of the consul at any foreign port, to inspect and furnish certificates to ships departing for the United States, making a heavy penalty to ships sailing without the same; gives them authority to make all needful rules and regulations for the prevention of the introduction into and spread within the United States of contagious or infectious diseases, and charges them with the execution of the same; requires weekly sanitary reports to them from consular officers, state and municipal sanitary authorities, and that the board shall publish weekly abstracts of such reports, to be furnished to the medical officers of the marine hospital service, collectors of customs, and state and municipal health officers and authorities, and further an annual report to the secretary of the treasury for transmission to Congress. Power is given to select stations and erect temporary buildings for necessary disinfection on all lines of inter-state commerce and travel; to call upon local officers and boards to enforce its rules, etc., and in case of refusal to obtain a detail from the medical staff of the army, navy, or marine hospital service for the purpose; to investigate the contagious or infectious diseases of domestic animals, and the best means of controlling or preventing such diseases, and to have thoroughly inspected all imported or exported cattle with proper recommendations. For the carrying out of the provisions of the act, the president is authorized to detail officers from the several departments of the government for temporary duty, without additional compensation save for necessary expenses, and $650,000 is made the appropriation. Section 13 reads, "nothing in this act shall be so construed as to supersede or impair any sanitary or quarantine law of any State."

ST. LOUIS.

— The annual convention of the District Medical Society of Northwest Missouri met at St. Joseph on the 10th inst. It was attended by members of the profession from Missouri, Iowa, Kansas, and Nebraska. Papers were read on Uterine Hæmorrhage by Dr. W. J. Heddens, and on Irritability of Muscular Fibres by Dr. D. I. Christopher.

— It has been decided to build at St. Joseph the state asylum for the insane, which is to take the place of the one which was destroyed by fire some months since.

HONORS TO PROFESSOR GROSS.

Mr. Editor, — Samuel D. Gross, M. D., LL. D., D. C. L. Oxon., professor of surgery in the Jefferson Medical College, formerly presiding officer of the American Medical Association, and afterwards president of the International Medical Congress, having now for more than half a century devoted himself to the active duties of his chosen profession, in which, by force of native ability, strong determination, and unflagging industry, he has become preëminent as an operator, a teacher, and an author, was recently tendered the compliment of a public dinner by his professional friends from all parts of the country. The banquet was given at the St. George Hotel, Philadelphia, and was commemorative of his having completed his fifty-first year in the practice of medicine. It was thought of one year ago, but was then postponed on account of a great domestic bereavement, and it was only at the solicitation of his personal friends that he finally consented to accept the distinction on the present occasion. This event, from the rare opportunity that inspired it, the high professional and social standing of those who united in the testimonial, and the honorable sentiments that prevailed, and of which it was the spontaneous and tangible expression, is, perhaps, without a precedent in the history of American medicine. The ovation that was proffered Professor Gross in company with Prof. Joseph Pancoast, in October, 1868, upon their return from their European tour, was an exceptional honor as an expression of esteem by their fellow-citizens in Philadelphia; but many circumstances conspired to make the present occasion far more significant and impressive, — the crowning honor of a long and successful career.

While the movement originated in Philadelphia, it was not restricted to this place, but the leading members of the profession in Pennsylvania, New Jersey, and Delaware were invited to participate, and these States were largely represented. Invitations were also sent to prominent physicians in different parts of the Union, and some who were present traveled more than a thousand miles in order to be present, a sincere compliment that was especially grateful to the guest of the evening. Among those present were Professors Benjamin Silliman of Yale College, David W. Yandell of Louisville, Theophilus Parvin of Indianapolis, and R. Beverly Cole of California; Austin Flint, James R. Wood, A. C. Post, Lewis A. Sayre, Austin Flint, Jr., Dr. George F. Shrady, Nathan Bozeman, and A. M. Asch, of New York; Drs. Van Bibber and Smith, of Baltimore; Surgeons Otis and Basil Norris, U. S. A., of Washington; and many of the prominent physicians of Pennsylvania. Prof. D. Hayes Agnew presided at the board, and among the other Philadelphians present were Professors William Pancoast, J. Aitken Meigs, Robert E. Rogers, Willam Goodell, James Tyson, Harrison Allen, Drs. Thomas S. Kirkbride, Albert H. Smith, Elwood Wilson, John H. Brinton, William Thompson, E. B. Gardette, A. Fricke, S. W. Gross, and J. Haller Gross, Esq. The appointments and conduct of the affair gave general pleasure and satisfaction, and were in the highest degree worthy of the committee of arrangements, consisting of Drs. D. Hayes Agnew, Thomas G. Morton, R. J. Levis, and J. Ewing Mears.

The banquet room was decorated with living ornamental plants, the chandeliers were wreathed in smilax, and large plaques of cut flowers were seen upon the tables. The floral decorations were very handsome, and during the evening the guests were entertained by choice music by Carl Sentz's orchestra.

The table at the upper end of the room, at which sat Professor Gross surrounded by the prominent guests of the evening, was extended by wings so as to form three sides of a parallelogram. Covers were laid for one hundred and sixteen, and nearly that number were present. At each plate was placed a menu on white satin, headed as follows: —

1828 — 1879.
SAINT GEORGE HOTEL.
COMPLIMENTARY DINNER
TO
PROFESSOR S. D. GROSS, M. D.,
In Commemoration of his Fifty-First Year in the Medical Profession.
April 10, 1879.

The guests sat down about eight o'clock, and at eleven Dr. Agnew announced that the first part of the exercises were at an end, and offered the first toast, Our Honored Guest, and in chosen words extended to Professor Gross the congratulations of the professional gentlemen surrounding the board, and reviewed some of the changes that had taken place during the fifty-one years that he had been actively engaged in the duties of his profession, and rapidly sketched the prominent scenes and incidents in this long and useful career. In concluding his remarks the chairman said: "It only remains for me to attach to the lapel of your coat in token of our good wishes, this little decoration, which is the gift of your friends who sit around this board, and to give you this book, which contains the names of those who have so kindly participated in this ceremonial. It may serve to set before your mind at some future date, when you have laid aside the active duties of life, the events of this evening; may it also lead your sons to emulate the noble virtues of their sire."

The medal was of good size, and the design was in excellent taste. It was of gold, having the initials S. D. G. set in diamonds on one side, and on the reverse this inscription:—

PRESENTED
TO
DR. S. D. GROSS
BY
HIS MEDICAL FRIENDS,
IN COMMEMORATION OF HIS
FIFTY-FIRST YEAR
IN THE PROFESSION.
APRIL 10, 1879.

In rising to respond, Professor Gross was greeted with prolonged applause and was evidently deeply affected. He finally said: "Mr. Chairman and Gentlemen,—In rising to respond to the toast offered by the distinguished chairman, I feel deeply oppressed by what Dr. Rush has so well described as 'suffocated excitement.' You need not be assured how much I appreciate the honor conferred by the occasion and by this warm reception. The sentiments embodied in the toast touch my heart, and I should indeed be dead to all the finer feelings of my nature if I did not tender you my most cordial and respectful acknowledgments. It is no light compliment to be in such a presence or to be the guest of such a company. To merit the approbation of my professional brethren and of good men generally has ever been my highest ambition, as it must be of every honest and virtuous citizen. The offer of a public dinner, extended to me a few weeks ago by a committee of my professional friends, took me completely by surprise, and would probably have been promptly declined if it had not been accompanied by such kind and flattering words as at once to satisfy me that they came from the heart. The commendations which you have bestowed upon my private character and public services as a practitioner and teacher of surgery are measured, I am conscious, rather by your own generous feelings than by any deserts of mine. Whatever value those services may possess, it is no ordinary consolation to me to know that they are appreciated by men among whom I have lived for nearly a quarter of a century, with many of whom I have been brought into frequent contact in the various relations of life,—often, indeed, under circumstances of a most trying kind,—with some of whom I have been officially associated, and with none of whom, thanks be to God, I have ever had one word of misunderstanding.

"It is not a pleasant thing to speak of one's self, but there are a few circumstances in the history of my not uneventful life to which I may perhaps be pardoned for referring upon this occasion. I have grown old in the profession, as pupil and practitioner for fifty-four years, my graduation dating back to March, 1828. A little over one month ago I closed my thirty-ninth course of lectures on surgery. If to these thirty-nine years be added two years spent as demonstrator of anatomy in the Medical College of Ohio, and four years passed in the medical department of the Cincinnati College as professor of pathological anatomy, it will be perceived that my life as a public teacher extends over a period of forty-five years. During all this time it has been my good fortune to miss few lectures, either from sickness or any other cause. If my teaching has not always been of the best quality, it has been as good as I knew how to make it. Whatever estimate may have been placed upon it by those who listened to it, I can solemnly declare that it has always been earnest and conscientious, with an eye single to the interests of my pupils, the truths of medical science, and the honor and dignity of the profession. On no occasion have I entered the amphitheatre without due preparation. One of the great objects of my early professional life was to qualify myself for the occupation of a public teacher. This idea, which haunted me as I sat upon the hard benches of my alma mater, like the demon of Socrates, gave me no rest day or night. My first effort in this direction was made in this city, at the Franklin Institute, in the spring of 1830, the subject being general anatomy, a branch of study then little understood or cared for in this country. The effort, however, proved to be an abortive one. The novelty of the subject, my own inexperience, and the paucity of students in the city at that season of the year were the causes of my failure. Finding practicing and lecturing in so large a city to be uphill work, I removed to Easton, in this State, whence, after two years and a half spent in earnest work, I went in 1833 to Cincinnati as demonstrator of anatomy in the Medical College of Ohio. From this institution, after a service of two years, I was called to the chair of pathological anatomy in the Cincinnati College, in which I gave the first regular and systematic course of lectures on that most important branch of anatomy ever delivered in this country. In 1840 I was invited to the chair of surgery in the University of Louisville. In 1850 I became the successor of Dr. Valentine Mott in the University of New York, but returned, after the close of the session, to the school in Kentucky. In 1856 I accepted the chair of surgery in my alma mater, unanimously tendered me by its honorable board of trustees.

"Having been thus actively engaged for so many years as a public teacher, it is not surprising that my pupils should be scattered over the country, while not a few of them are successfully practicing in foreign climes. Upwards of five thousand diplomas bear my signature. Of the thirty-seven colleagues with whom I have at various times been associated, twenty-six have fallen by the wayside, for the most part ripe in years and full of honors, leaving eleven survivors, among others Willard Parker, Austin Flint, and John W. Draper, of New York, Benjamin Silliman, of New Haven, and our distinguished townsman, Joseph Pancoast, — five men of whom any profession in any country might justly be proud. It has been said that youth is a blunder, manhood a struggle, and old age a regret. If this be true I have not realized it in my own person; nor need it be true of any one who is true to himself. Struggles of some kind or another are almost the inevitable lot of every man who is not born with a silver spoon in his mouth. I certainly had mine, but they were the struggles of early life, and I thank God for them, for they taught me patience and perseverance and self-reliance, and were powerful aids in developing character. These struggles did not discourage me. On the contrary, I felt as

Sheridan did when he made his maiden speech in the British House of Commons, — that it was in me and would come out of me; or, as Erskine expressed it on a similar occasion, I felt as if my children were tugging at my coat, and urging me on to industry and perseverance that I might supply their necessities. A brave man never yields to despair. His motto is *Perseverantia omnia vincit.* This has been my motto, and whatever success I may have achieved is due to persistent effort and to a definite aim in life, without any faltering or misgiving in regard to the final issue. I have never lost sight of the fact that what a man soweth he shall reap, or that 'if the spring show no blossoms, autumn will show no fruit.'

"Much has been said about the inspiration of genius. The greatest efforts that have been made at the forum, in the pulpit, or in the senate, in ancient or modern times, were the result of hard study and patient labor. Patrick Henry, William Pinckney, Rufus Choate, and others like these never made a great argument or a great oratorical display without preparation, and the same is true of every profession and every pursuit. After fifty years of earnest work I find myself still in the harness; but although I have reached that age when most men, tired of the cares of life, seek repose in retirement, and abandon themselves to the study of religion, the claims of friendship, or the contemplation of philosophy, my conviction has always been that it is far better for a man to wear out than to rust out. Brain work, study, and persistent application have been a great comfort to me, as well as a great help; it has enhanced the enjoyment of daily life and added largely to the pleasures of the lecture-room and of authorship; indeed, it will always, I am sure, if wisely regulated, be conducive both to health and longevity. A man who abandons himself to a life of inactivity after having always been accustomed to work is practically dead.

"In taking a retrospect of my life I have no regrets. I console myself with the belief that I have not lived wholly in vain, and that, while much remains undone that might and should have been done, it might be reasonable to suppose that at least some of the seed which I have sown have produced good fruit. It is not given to every man to be a Harvey, a Hunter, a Jenner, a Bichat, a Morton, a Paget, or a Virchow. 'By the grace of God,' says St. Paul, 'I am what I am.' No man can rise superior to himself. What is fame? Is it a phantom, or is it a reality? Alas! too often the former, too seldom the latter. Few medical works, however meritorious, outlive their authors, and no sooner does a teacher retire from the field of his labor than his pupils worship other gods. Happy, thrice happy, is he who in the evening of his life, as he reviews his past conduct, can say to himself, 'I have been true to my profession. I have been ambitious of its glory; I have done nothing to tarnish its escutcheon.' As I look back through the dark vista of half a century, what memories crowd upon my mind! Kingdoms have crumbled to pieces; new dynasties have sprung up; the world has been drenched in blood by contending armies; millions of human beings have been swept away by pestilence and famine; civilization, commerce, the arts and sciences, religion, and education have found new homes; the uttermost parts of the globe have been explored by intrepid navigators and adventurous travelers; time and space have been annihilated by the telegraph; and the employment of steam and the application of machinery have changed the occupations of man, and thrown upon us a surplus population which the wisest statesmen know not how to dispose of. The art and the science of medicine have been completely revolutionized and enriched to an extent which fifty years ago would have baffled the wildest conceptions. During these vast changes, so pregnant in beneficence to mankind, America has not been idle. If she had contributed nothing more to the stock of human happiness than anæsthetics the world would owe her an everlasting debt of gratitude. The fanciful and mischievous speculations which characterized medicine in the days of my youth have been replaced by sober facts, founded upon more carefully conducted observations and more rational deductions. In preventive medicine a new field has been opened which, if properly explored and cultivated, as it seems destined to be, will add millions of years to the life of the human race. Oh for a glance at the profession a century hence, when man, enlightened and refined by education and redeemed from the thralldom of ignorance and superstition, shall reflect more perfectly than he now does the image of his Maker!

"I thank you, Mr. Chairman, and you, gentlemen, who have honored me with your presence here this evening, for the patience and attention with which you have listened to my rambling remarks. Allow me, before I take my seat, to wish you, one and all, prosperity and happiness, and to drink your health with a heart brim full of gratitude for the many favors that have been showered by my professional brethren upon me."

Upon taking his seat the speaker was loudly cheered and applauded, the entire company rising and drinking to the sentiment, "Many years yet to the distinguished chief."

The remaining toasts were, Welcome to our Guests, humorously offered by Professor Rogers, and responded to by Prof. D. W. Yandell, who claimed Professor Gross as the foster-son of Kentucky, and assured him of the unwavering attachment of his people for their friend and their old master.

Professor Gross with much emotion said: "My illustrious pupil, carry my best respects back with you to the people of that State, and assure them of my undying attachment to the men and women, and most of all their homes. After an absence of nearly a quarter of a century my heart quickens at the recollection of my early home among them. May God preserve Kentucky and its warm-hearted people!"

The toast of Medical Education was responded to by Dr. Traill Green, of Easton. Professor Post, of New York, was called upon to respond to the toast of American Surgery. The sentiment of The Army and Navy was awarded to Dr. Basil Norris, who responded briefly in a very neat speech. The final toast of Old Memories was renamed Auld Lang Syne, to which Professor Silliman, of Yale, responded in a finished address.

A number of complimentary letters, regrets, and telegrams were read by Dr. Mears, after which the gentlemen adjourned to the parlors for smoking and social converse. Early in the morning the assemblage broke up with feelings of the utmost satisfaction, nothing having occurred to mar the harmony of one of the most enjoyable and impressive celebrations that has ever taken place in the City of Brotherly Love.

SHORT COMMUNICATIONS.

THE MARINE HOSPITAL SERVICE.

Mr. Editor, — In your issue of April 3d appears an article purporting to be a reply to "Efficiency," in regard to the transfer of the marine hospital service to the navy department. Instead of reviewing the question fairly, the writer made a most uncalled-for and untruthful attack upon the medical and other officers of the navy. He states that there are three and a half seamen to one officer in the navy. If the gentleman will take the trouble to examine the navy register he will see his error. There are twelve thousand five hundred and ninety-one officers and men in the navy and marine corps who are at present entitled to medical treatment from the medical officers of the navy. The law allows one hundred and eighty officers to perform this duty; thus the proportion of surgeons is one to sixty-nine and ninety-five hundredths men. Besides those regularly in the service, there are about five thousand employees at the various navy yards and stations who are entitled to medical attendance from the surgeons attached to the respective stations. The gentleman states, upon the authority of a politician, that the expense of treating patients in naval hospitals is enormous! The naval hospital at New York is one of the largest in the service, and usually contains from seventy-five to one hundred patients. The sum allowed by the bureau of medicine and surgery for the entire running expenses of this hospital during 1878 was only four thousand four hundred dollars. As to the antiquity of the marine hospital service, of which the gentleman boasts so loudly, he must admit that age did little to develop it. During the last few years several energetic and able men, who deserve much praise, have wrought a great and beneficial change in the service, but over the seventy years during which politicians used it as an asylum for degenerate friends andr elatives a veil had better be drawn.

E.

REPORTED MORTALITY FOR THE WEEK ENDING APRIL 12, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Pneumonia.	Diphtheria and Croup.	Scarlet Fever.	Diarrhœal Diseases.
New York	1,085,000	471	22.63	16.35	11.46	3.82	5.09	0.85
Philadelphia	—	286	—	14.65	9.44	4.54	4.54	1.75
Brooklyn	564,400	211	19.49	17.54	8.53	6.64	6.16	0.92
Chicago	—	150	—	20.00	10.00	10.00	6.00	1.33
St. Louis	—	105	—	9.52	7.62	2.86	—	—
Baltimore	365,000	134	19.14	18.65	13.43	2.98	4.48	2.24
Boston	360,000	151	21.86	13.91	15.23	5.96	2.65	2.65
Cincinnati	—	108	—	31.48	13.89	1.85	18.52	5.56
District of Columbia	160,000	82	26.72	—[1]	—[1]	3.66	2.44	—[1]
Cleveland	—	66	—	12.12	16.67	3.03	1.26	—
Pittsburgh	—	56	—	21.43	17.86	7.14	1.79	—
Milwaukee	—	46	—	30.43	10.87	23.91	2.17	—
Providence	101,000	37	19.10	24.32	8.11	5.41	13.51	2.70
New Haven	60,000	14	12.17	14.28	—	—	—	—
Charleston	57,000	25	22.85	12.00	4.00	4.00	—	—
Nashville	27,000	13	25.08	—	—	—	—	—
Lowell	53,300	20	19.56	25.00	15.00	5.00	10.00	—
Worcester	52,500	21	20.85	14.29	—	4.76	—	4.76
Cambridge	51,400	22	22.31	18.18	18.18	4.55	—	—
Fall River	48,500	19	20.43	10.53	—	—	—	5.26
Lawrence	38,200	19	25.94	26.32	10.53	26.32	—	—
Lynn	34,000	13	19.94	30.77	—	15.38	7.69	—
Springfield	31,500	9	14.90	11.11	—	—	11.11	—
New Bedford	27,000	8	15.45	37.50	—	25.00	—	—
Salem	26,400	7	13.83	28.57	14.28	14.28	—	—
Somerville	23,350	9	20.10	22.22	—	—	—	—
Chelsea	20,800	7	17.55	42.86	—	42.86	—	—
Taunton	20,200	—	—	—	—	—	—	—
Holyoke	18,200	16	45.84	6.25	—	—	—	—
Gloucester	17,100	4	12.20	—	—	—	—	—
Newton	17,100	5	15.25	—	20.00	—	—	—
Haverhill	15,300	—	—	—	—	—	—	—
Newburyport	13,500	6	23.17	16.67	—	—	16.67	—
Fitchburg	12,500	1	4.17	—	100.00	—	—	—

[1] Not reported.

Two thousand one hundred and forty deaths were reported: 368 from consumption, 360 from the principal "zymotic" diseases, 215 from pneumonia, 118 from diphtheria and croup, 104 from scarlet fever, 84 from bronchitis, 36 from whooping-cough, 29 from diarrhœal diseases, 28 from typhoid fever, 18 from cerebro-spinal meningitis, 17 from erysipelas, 14 from measles, one from small-pox (unvaccinated foreign child), showing a decrease from acute pulmonary diseases and erysipelas, an increase from chronic pulmonary diseases, typhoid fever, whooping-cough, and especially measles, while the mortality from all diseases, from all pulmonary diseases, and cerebro-spinal meningitis remains about the same, the change not being considerable in the diseases not specified. From *bronchitis* 22 deaths were reported in New York, 15 in Brooklyn, nine in Philadelphia, eight in Boston, six in Chicago, five in Cleveland and Cambridge, three in St. Louis and Cincinnati, two in Baltimore, one in Pittsburgh, New Haven, Lowell, Fall River, Lynn, and Newton. From *whooping-cough* 18 in New York, five in Brooklyn, three in Baltimore, two in Boston, Cincinnati, and Cambridge, one in Cleveland, Pittsburgh, New Haven, and Salem. From *typhoid fever*, seven in Philadelphia, six in Baltimore, four in St. Louis, three in New York, two in Chicago and Milwaukee, one in Brooklyn, Cincinnati, Pittsburgh, and New Haven. From *cerebro-spinal meningitis*, two in New York, Philadelphia, Chicago, St. Louis, Boston, and Lowell, one in Baltimore, Cleveland, Providence, Charleston, Somerville, and Holyoke. From *erysipelas*, five in New York, three in Cincinnati, two in Philadelphia, one in Brooklyn, St. Louis, New Haven, Cambridge, Fall River, and New Bedford. From *measles*, five in Pittsburgh, three in Cleveland, two in New York and Baltimore, one in Brooklyn and Worcester. From *malarial* fever, five in New York, three in St. Louis. From *remittent fever*, two in Brooklyn. From *catarrhal fever*, one in Baltimore; from *fever*, one in Cincinnati; and from *small-pox*, one in New York (first this year). From *trismus nascentium*, one in Charleston. Scarlet fever and pulmonary diseases remain prevalent in Richmond, diphtheria and pulmonary diseases in San Francisco, and pulmonary diseases in Louisville. There is an increase in the mortality from "fevers" in Buffalo, Richmond, and Louisville; a marked decrease in Savannah and New Orleans. Vessels arriving at Boston and Baltimore from Rio were found to have had deaths from yellow fever during the passage; both were removed to quarantine. In seventeen of the nineteen cities of Massachusetts, with an estimated population of 845,350, there was a decreased mortality from pneumonia and typhoid fever; about the same from diarrhœa and measles, and decreased from the remaining "zymotic" diseases and consumption. The weather was generally reported changeable, with rain and high winds; somewhat warmer.

Sergeant Purssell's meteorological record for the week, in Boston, is as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.			Rainfall.	
	Daily Mean.	Daily Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Daily Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration in Hours.	Amount in Inches.
April 6	29.978	35	50	24	75	16	53	48	W	W	W	9	8	12	F	F	C	—	—
" 7	29.839	41	52	31	70	40	56	55	SW	W	NW	4	21	12	O	F	F	—	—
" 8	30.047	40	47	33	61	26	48	45	NW	NW	W	17	16	10	C	C	C	—	—
" 9	29.937	49	60	34	53	27	40	40	W	W	N	12	19	10	F	F	O	—	—
" 10	29.771	35	48	32	71	80	95	82	E	E	N	12	20	26	O	R	R	9.3	1.57
" 11	29.609	35	42	30	89	57	80	75	N	N	N	20	15	8	O	O	S	7.6	.35
" 12	29.856	35	44	30	68	33	53	51	NW	NW	NW	13	25	7	F	F	C	0.6	.01

	Barometer.	Thermometer.	Humidity, Saturation being 100.	Wind.	Rain.
Weekly Summary.	Mean 29.863	Mean 39.3	Mean 56.7	Total miles traveled, 2244.	Total amt. 1.93 in.
	Max. 30.068	Max. 60	Max. 100		
	Min. 29.451	Min. 24	Min. 16	Prevailing direction, W.	Duration, 17 hrs. 30 min.
	Range .617	Range 36	Range 84		

Barometer corrected for temperature, elevation, and instrumental error.

Explanation of weather symbols: O., cloudy; C., clear; F., fair; G., fog; H., hazy; R., rain; S., snow or sleet; L. S., light snow; T., threatening.

Station: Latitude 42° 21′; longitude 71° 4′; height of instrument above the sea, 77.5.

For the week ending March 22d, in 149 German cities and towns, with an estimated population of 7,448,862, the death-rate was 27.9, an increase of 0.7 from the previous week. Of the infectious diseases, scarlet fever had decidedly increased and diphtheria diminished. Pulmonary diseases were much more fatal, the changes in the other diseases not being very considerable. Three thousand nine hundred and ninety-nine deaths were reported: 665 from consumption, 499 from acute diseases of the respiratory organs, 169 from diarrhœal diseases, 149 from diphtheria and croup, 62 from scarlet fever, 58 from typhoid fever, 51 from whooping-cough, 30 from measles, 24 from puerperal fever, 16 from typhus fever, none from small-pox. The death-rates ranged from 18.2 in Potsdam to 42.2 in Strasburg; 25.2 in Dantzic, 30.6 in Breslau, 39.3 in Munich, 29.3 in Nuremberg, 23.0 in Dresden, 27.0 in Berlin, 23.2 in Leipsic, 22.9 in Hamburg, 28.5 in Bremen, 31.5 in Cologne, 30.2 in Frankfort-on-the-Main.

For the week ending March 29th, in the 20 English cities having an estimated population of 7,383,999, the death-rate was 28.2, an increase of 1.0 from the previous week. Diseases of the respiratory organs and whooping-cough continue excessively prevalent and fatal, the latter diminishing; scarlet fever increasing, small-pox in London and diphtheria decreasing, Three thousand nine hundred and ninety-two deaths were reported: 687 from diseases of the respiratory organs, 149 from whooping-cough, 107 from scarlet fever, 46 from fever, 46 from measles, 36 from diarrhœa, 15 from diphtheria, nine from small-pox. Dublin continues to have a high mortality from small-pox. The death-rates ranged in the 23 cities of the United Kingdom from 17.8 in Brighton to 33 in Dublin, 18 in Edinburgh, 25 in Glasgow, 29.9 in London, 26.4 in Birmingham, 25.6 in Liverpool, 29.9 in Manchester, 23 in Portsmouth.

Fevers and small-pox continue to prevail in India, small-pox, fevers, and diphtheria in Paris and Budapesth, diphtheria and fevers in Italy, small-pox and diphtheria in Vienna, and small-pox with an increase of fevers in St. Petersburg. Typhus fever still prevails in parts of Russia and Turkey, decreasing in those few places in Germany where it assumed an epidemic form, in Odessa and Warsaw, as well as in St. Petersburg, unusual symptoms appearing. No new cases of the plague have been reported on the Volga, where the vigorous sanitary measures taken are in striking contrast to the apathy in most of our Southern cities, whose sanitary condition, so far as we can learn, has not been materially improved since last summer.

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Suffolk District Medical Society. — The annual meeting will be held at the hall, 19 Boylston Place, on Saturday evening, April 26th, at seven and a half o'clock. Reports of committees. Election of officers. The following papers will be read: —

Dr. James Ayer. A Partial Review of Two Thousand Cases of Midwifery.

Dr. Walter Channing. Care of the Insane in Massachusetts.

Dr. E. H. Bradford. Treatment of Deformities from Infantile Paralysis.

Dr. B. Joy Jeffries. Statistics of Color-Blindness in this Community; Color-Blind Vision.

Supper at nine o'clock.

The Gynæcological Society of Boston. — The next regular meeting — one hundred and second — of the society will be held at Medical Library Rooms, 19 Boylston Place, on the first Thursday of May, at two o'clock P. M. Paper by H. M. Field, M. D., on Concealed Pregnancy complicating a Diseased Uterus. Profession invited.

Henry M. Field, M. D., *Secretary.*

The American Association for the Cure of Inebriates will hold its tenth annual meeting in New York city, at the hall of the Young Men's Christian Association, May 13th and 14th, commencing at ten A. M. Very important papers will be presented.

Appointment. — Dr. C. E. Woodbury has been appointed assistant port physician in place of Dr. J. B. Swift, appointed port physician.